



### General description

The FLIR b50™ is the newest high sensitive version in the BCAM family. All very highly portable and rugged Infrared cameras for building inspections.

- IR resolution: 140 × 140
- Fusion (Picture in Picture, in three steps)
- Digital camera resolution: 1536 × 1536 (2.3 Mpixels)
- Weight: 600 g
- Laser pointer
- Dewpoint and insulation alarms

### Imaging and optical data

Field of view (FOV)	25° × 25°
Minimum focus distance	0.10 m (0.33 ft.)
Focal length	10 mm (0.4 in.)
Spatial resolution (IFOV)	3.12 mrad
F-number	1.5
Thermal sensitivity/NETD	<0.10°C (<0.18°F) @ +25°C (+77°F) / 100 mK
Image frequency	9 Hz
Focus	Manual

### Detector data

Detector type	Focal Plane Array (FPA), uncooled microbolometer
Spectral range	7.5–13 μm
IR resolution	140 × 140 pixels

### Image presentation

Display	Built-in 3.5 in. LCD, 256k colors, 240 × 320 pixels
Image adjustment	Auto (min span 5°C / 9°F) or manual (min span 4°C / 7.2°F)
Image modes	IR image, visual image, Picture in Picture, thumbnail gallery
Picture in Picture	IR area (in three steps) on visual image

### Measurement

Object temperature range	-20 to +120°C (-4 to +248°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading

### Measurement analysis

Spotmeter	Center spot
Isotherm	1 with above/below
Emissivity correction	Variable from 0.1 to 1.0 or selected from list of materials
Reflected apparent temperature correction	Automatic, based on input of reflected temperature

<b>Alarm</b>	
Dew point alarm	1 dew point alarm
Insulation alarm	1 insulation alarm
<b>Set-up</b>	
Menu commands	Palettes (Black and White, Iron and Rainbow), image adjustment (auto/manual)
Set-up commands	Local adaptation of units, language, date and time formats; automatic shutdown, display intensity
Languages	cs, da, de, el, en, es, fi, fr, hu, it, ja, ko, nl, no, pl, pt, ru, sv, tr, zh-cn, zh-tw
<b>Storage of images</b>	
Image storage type	microSD card
File formats	Standard JPEG, 14-bit measurement data included
<b>Digital camera</b>	
Digital camera, resolution	2.3 Mpixels (1536 × 1536 pixels)
Digital camera, focus	Minimum focus distance 0.4 m (1.3 ft.)
Video lamp	2 lamps, 15 lux @ 2 m (6.6 ft.)
<b>Laser pointer</b>	
Laser classification	Class 2
Laser type	Semiconductor AlGaInP diode laser
Laser power	1 mW
Laser wavelength	635 nm (red)
<b>Data communication interfaces</b>	
USB	<ul style="list-style-type: none"> <li>• USB-A: Connect external USB device (e.g. memory stick)</li> <li>• USB Mini-B: Data transfer to and from PC / streaming MPEG-4</li> </ul>
USB, standard	USB 1.1 full speed (12 Mbps)
USB, connector type	<ul style="list-style-type: none"> <li>• USB-A connector</li> <li>• USB Mini-B connector</li> </ul>
<b>Power system</b>	
Battery type	Li Ion, field replaceable
Battery capacity	2.2 Ah, at +20°C to +25°C (+68°F to +77°F)
Battery operating time	Approx. 5 hours at +25°C (+77°F) ambient temperature and typical use
Charging system	In camera, AC adapter, 2-bay charger or 12 V from a vehicle
Power management	Automatic shutdown (user selectable)
Battery information	Display shows battery status
AC operation	AC adapter, 90–260 VAC, 50/60 Hz, 12 V output to camera
Voltage	11–16 VDC
<b>Environmental data</b>	
Operating temperature range	-15 to +50°C (+5 to +122°F)
Storage temperature range	-40 to +70°C (-40 to +158°F)
Humidity (operating and storage)	IEC 68-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F)
EMC	<ul style="list-style-type: none"> <li>• EN 61000-6-2 (Immunity)</li> <li>• EN 61000-6-3 (Emission)</li> <li>• FCC 47 CFR Part 15 Class B (Emission)</li> </ul>
Encapsulation	IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
<b>Physical data</b>	
Camera weight, incl. battery	0.60 kg (1.32 lb)
Battery weight	0.12 kg (0.26 lb.)
Camera size (L × W × H)	235 × 81 × 175 mm (9.3 × 3.2 × 6.9 in.)
Battery size (L × W × H)	92 × 41 × 26 mm (3.6 × 1.6 × 1.0 in.)
Battery charger size (L × W × H)	80 × 98 × 47 mm (3.2 × 3.9 × 1.8 in.), without battery

Housing material	Polycarbonate and acrylonitrile butadiene styrene (PC-ABS)
Grip material	Thermoplastic elastomer (TPE)
<b>Scope of delivery</b>	
<ul style="list-style-type: none"> <li>• Hard transport case</li> <li>• Infrared camera with lens</li> <li>• Battery</li> <li>• Calibration certificate</li> <li>• FLIR QuickReport™ PC software CD-ROM</li> <li>• Memory card with adapter</li> <li>• Power supply (+ mains cable for Japanese market)</li> <li>• Printed Getting Started Guide</li> <li>• USB cable</li> <li>• User documentation CD-ROM</li> <li>• Warranty extension card or Registration card</li> </ul>	
<b>Optional Accessories</b>	
<ul style="list-style-type: none"> <li>• T196398 Battery</li> <li>• T196497 Cigarette lighter adapter kit, 12 VDC, 1.2 m/3.9 ft.</li> <li>• T197667 Battery package</li> <li>• T197650 2-bay battery charger, incl. power supply with multi plugs</li> <li>• T910750 Power supply, incl. multi plugs</li> <li>• T910737 Memory card micro-SD with adapters</li> <li>• T122000 Camera pouch for E Series, InfraCAM/BCAM, FLIR i/bXX</li> <li>• T197247 Hard transport case for i/b40-60</li> </ul>	
<b>Optional Software</b>	
<ul style="list-style-type: none"> <li>• T197613 FLIR BuildIR</li> <li>• T197716 FLIR Reporter 8.5 SP1, Standard</li> <li>• T197717 FLIR Reporter 8.5 SP1, Professional</li> <li>• T197717L5 FLIR Reporter 8.5 SP1, Professional, 5 user licenses</li> <li>• T197717L10 FLIR Reporter 8.5 SP1, Professional, 10 user licenses</li> <li>• T197778 FLIR BuildIR 2.1</li> </ul>	

# Optional Accessories

## 1196398; Battery



General description	
High capacity battery for the IR camera.	
Technical data	
Battery type	Rechargeable Li Ion battery
Battery voltage	7.2 V
Battery capacity	2.2 Ah, at +20°C to +25°C (+68°F to +77°F)
Battery note	Approximate lithium content: 1.0 g
Charging time	2.5 h to 95% capacity, charging status indicated by LEDs
Battery weight	0.12 kg (0.26 lb.)
Size (L x W x H)	92 x 41 x 26 mm (3.6 x 1.6 x 1.0 in.)

v1.03

## 1196497; Cigarette lighter adapter kit, 12 VDC, 1.2 m/3.9 ft.

General description	
Cable, used to power the camera from the cigarette lighter socket in a car. The cable can also be connected directly to the battery.	
The battery on the image is not included in the 12V DC connection cable.	
Technical data	
DC operation	12 VDC
Cable length	1.2 m (4.0 ft.)
Color	Black

v1.03

## T197667; Battery package

General description	
A complete battery package consisting of three standard products	
Scope of delivery	
<ul style="list-style-type: none"> <li>T197648 Battery kit, see 1196398 - Battery for specifications</li> <li>T197650 2-bay charger kit incl Power supply</li> <li>T197649 12 VDC Connection cable kit, see 1196497 - 12 VDC connection cable for specifications</li> </ul>	

v1.0

## T197650; 2-bay battery charger, incl. power supply with multi plugs

General description	
Stand-alone 2-bay battery charger, including power supply with multi plugs.	
The batteries on the image are not included in the 2-bay battery charger.	
Technical data	
AC operation	100–240 VAC, 50/60 Hz, 12 VDC out
Power	2000 mA at 12 VDC
Battery charger size (L x W x H)	80 x 98 x 47 mm (3.2 x 3.9 x 1.8 in.), without battery
Cable length	1.98 m (6.5 ft.)

Scope of delivery	
<ul style="list-style-type: none"> <li>Stand-alone 2-bay battery charger</li> <li>Power supply including cable</li> <li>EU plug</li> <li>UK plug</li> <li>US plug</li> <li>AU plug</li> </ul>	

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## T910750; Power supply, incl. multi plugs



General description	
Combined power supply, including multiple plugs, and battery charger to charge the battery when it is inside or outside of the camera.	
Technical data	
AC operation	100–240 VAC, 50/60 Hz, 12 VDC out
Power	2000 mA at 12 VDC
Cable length	1.98 m (6.5 ft.)
Scope of delivery	
<ul style="list-style-type: none"> <li>Power supply including cable</li> <li>EU plug</li> <li>UK plug</li> <li>US plug</li> <li>AU plug</li> </ul>	

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## T910737; Memory card micro-SD with adapters

General description	
Micro-SD Card for data storage (e.g. images)	
Technical data	
Memory card, size	2 GB
Scope of delivery	
<ul style="list-style-type: none"> <li>micro-SD</li> <li>Adapter to miniSD Card</li> <li>Adapter from miniSD Card to SD memory card</li> </ul>	

v1.02

## 1122000; Camera pouch for E Series, InfraCAM/BCAM, FLIR i/bXX

General description	
Camera pouch for E Series, InfraCAM/BCAM and FLIR i/bXX with waist belt (max 1.2 m, 3.9 ft.) made of Codura fabric with externally attached battery pouch.	
Technical data	
Weight	42 g (1.48 oz.)
Size (L x W x H)	300 x 180 x 90 mm (11.8 x 7.1 x 3.5 in.)
Color	Black

v1.02

## T197247; Hard transport case for i/b40-60

General description	
Rugged, watertight plastic shipping case for FLIR i/bXX. Holds all items neatly and securely. The case can be locked with padlocks and features a breather valve to prevent pressure build-up in airplane cargo holds.	
Technical data	
Weight	2.1 kg (4.6 lb.)
Size (L x W x H)	360 x 290 x 165 mm (14.2 x 11.4 x 6.5 in.)

v1.0

# Optional Software

## T197613; FLIR BuildIR



### General description

A dedicated and flexible software for advanced analyses of building related applications. Report templates for energy loss / cost savings potential, air infiltration, moisture and insulation deficiencies. Assess scope of damage/problem. Increase Speed & Quality of your reports. Quantify geometrical areas and use the panorama tool to stitch images of large objects together. Makes the work considerably easier for building related analyses - Organize, Analyze, Report

### Key features:

- See, Quantify and Estimate potential energy cost savings.
- Possibility of assessing scope of damage/problem
- Customized report templates for: Air infiltration, Moisture, Insulation deficiencies, and estimation of potential energy savings.
- Panorama functionality: Create automatically one image from many to cover large objects or increase resolution
- Link files.
- Create graph of the conditions during the inspection.

### Release notes

Version	FLIR BuildIR 2.0
New features	<ul style="list-style-type: none"> <li>• Customizable report templates (header &amp; footer, font, size, color)</li> <li>• Reporter independent. Create docx-files directly in Microsoft Word.</li> <li>• Panorama/image stitching of any FLIR IR images. Including perspective corrections and crop function.</li> <li>• Energy cost comparison template.</li> <li>• 30 day demo version.</li> </ul>

### Scope of delivery

- FLIR BuildIR

### System requirements

Operating system	Windows XP 32-bit Windows Vista 32-bit/64 bit
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v1.0

## T197716; FLIR Reporter 8.5 SP1, Standard



### General description

FLIR Reporter Standard is a powerful software for creating compelling and professional, fully customized, easy-to-interpret maintenance reports.

Standard Report Wizard guides you step-by-step in combining IR images and visual images into a professional, easy-to-interpret maintenance report.

### Key features:

- Flexible report page design and layout for customized reports
- Fully integrated with standard Microsoft Word
- Generates reports in standard MS Office format and PDF-format
- Powerful temperature analysis
- Triple Fusion Picture-in-Picture (movable, sizable, scalable)
- Automatic link to Google™ Maps for images with GPS coordinates
- Fine tune images and make full temperature analysis directly in Microsoft Word
- Spell check
- Panorama tool for combining several images to a larger image
- Support for GF series IR images
- Auto Update function
- Windows 7, 32 and 64-bit
- Support for MeterLink™ data
- \*.docx compatibility

### Release notes

Version	8.5 SP1
New features	<ul style="list-style-type: none"> <li>• Full support for Windows® 7</li> <li>• Support for MeterLink™ data</li> <li>• *.docx compatibility</li> </ul>

### Scope of delivery

- FLIR Reporter Standard
- Getting Starting Guide

### System requirements

Operating system	Windows XP, 32-bit Windows Vista, 32-bit Windows Vista, 64-bit Windows 7, 32-bit Windows 7, 64-bit
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v1.01

## T197717; FLIR Reporter 8.5 SP1, Professional



### General description

FLIR Reporter Professional is a powerful software for creating compelling and professional, fully customized, easy-to-interpret maintenance reports.

Professional Report Wizard guides you step-by-step in combining all IR inspection data - infrared and visual images, temperature measurements, and text notes - into a professional, easy-to-interpret maintenance report.

### Key features:

- Flexible report page design and layout for customized reports
- Use quick insert function to easily create custom report pages
- Fully integrated with standard Microsoft Word
- Generates reports in standard MS Office format and PDF-format
- Powerful temperature analysis
- Triple Fusion Picture-in-Picture (movable, sizable, scalable)
- Rapid report manager supporting automatic report generation by drag-and-drop
- Trending functionality
- Automatic link to Google™ Maps for images with GPS coordinates
- Automatic summary table for the report
- Fine tune images and make full temperature analysis directly in Microsoft Word
- Spell check
- Create your own formulas including measurement values from images
- Play radiometric sequences directly in the report
- Search functionality to quickly finding images for your report
- Panorama tool for combining several images to a larger image
- Support for GF series IR images
- Auto Update function
- Windows 7, 32 and 64-bit
- Support for MeterLink™ data
- \*.docx compatibility

### Release notes

Version	8.5 SP1
New features	<ul style="list-style-type: none"> <li>• Full support for Windows® 7</li> <li>• Support for MeterLink™ data</li> <li>• *.docx compatibility</li> </ul>

### Scope of delivery

- FLIR Reporter Professional
- Getting Starting Guide

System requirements	
Operating system	Windows XP, 32-bit Windows Vista, 32-bit Windows Vista, 64-bit Windows 7, 32-bit Windows 7, 64-bit

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## T197717L5; FLIR Reporter 8.5 SP1, Professional, 5 user licenses



### General description

FLIR Reporter Professional is a powerful software for creating compelling and professional, fully customized, easy-to-interpret maintenance reports.

Professional Report Wizard guides you step-by-step in combining all IR inspection data - infrared and visual images, temperature measurements, and text notes - into a professional, easy-to-interpret maintenance report.

#### Key features:

- Flexible report page design and layout for customized reports
- Use quick insert function to easily create custom report pages
- Fully integrated with standard Microsoft Word
- Generates reports in standard MS Office format and PDF-format
- Powerful temperature analysis
- Triple Fusion Picture-in-Picture (movable, sizable, scalable)
- Rapid report manager supporting automatic report generation by drag-and-drop
- Trending functionality
- Automatic link to Google™ Maps for images with GPS coordinates
- Automatic summary table for the report
- Fine tune images and make full temperature analysis directly in Microsoft Word
- Spell check
- Create your own formulas including measurement values from images
- Play radiometric sequences directly in the report
- Search functionality to quickly finding images for your report
- Panorama tool for combining several images to a larger image
- Support for GF series IR images
- Auto Update function
- Windows 7, 32 and 64-bit
- Support for MeterLink™ data
- \*.docx compatibility

### Release notes

Version	8.5 SP1
New features	<ul style="list-style-type: none"> <li>• Full support for Windows® 7</li> <li>• Support for MeterLink™ data</li> <li>• *.docx compatibility</li> </ul>

### Scope of delivery

- FLIR Reporter Professional
- Getting Starting Guide
- 5 user licenses

### System requirements

Operating system	Windows XP, 32-bit Windows Vista, 32-bit Windows Vista, 64-bit Windows 7, 32-bit Windows 7, 64-bit
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## T197717L10; FLIR Reporter 8.5 SP1, Professional, 10 user licenses



### General description

FLIR Reporter Professional is a powerful software for creating compelling and professional, fully customized, easy-to-interpret maintenance reports.

Professional Report Wizard guides you step-by-step in combining all IR inspection data - infrared and visual images, temperature measurements, and text notes - into a professional, easy-to-interpret maintenance report.

#### Key features:

- Flexible report page design and layout for customized reports
- Use quick insert function to easily create custom report pages
- Fully integrated with standard Microsoft Word
- Generates reports in standard MS Office format and PDF-format
- Powerful temperature analysis
- Triple Fusion Picture-in-Picture (movable, sizable, scalable)
- Rapid report manager supporting automatic report generation by drag-and-drop
- Trending functionality
- Automatic link to Google™ Maps for images with GPS coordinates
- Automatic summary table for the report
- Fine tune images and make full temperature analysis directly in Microsoft Word
- Spell check
- Create your own formulas including measurement values from images
- Play radiometric sequences directly in the report
- Search functionality to quickly finding images for your report
- Panorama tool for combining several images to a larger image
- Support for GF series IR images
- Auto Update function
- Windows 7, 32 and 64-bit
- Support for MeterLink™ data
- \*.docx compatibility

### Release notes

Version	8.5 SP1
New features	<ul style="list-style-type: none"> <li>• Full support for Windows® 7</li> <li>• Support for MeterLink™ data</li> <li>• *.docx compatibility</li> </ul>

### Scope of delivery

- FLIR Reporter Professional
- Getting Starting Guide
- 10 user licenses

### System requirements

Operating system	Windows XP, 32-bit Windows Vista, 32-bit Windows Vista, 64-bit Windows 7, 32-bit Windows 7, 64-bit
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v1.01

## T197778; FLIR BuildIR 2.1



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**General description**

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A dedicated and flexible software for advanced analyses of building related applications.  
Report templates for energy loss / cost savings potential, air infiltration, moisture and insulation deficiencies.  
Assess scope of damage/problem.  
Increase Speed & Quality of your reports.  
Quantify geometrical areas and use the panorama tool to stitch images of large objects together.  
Makes the work considerably easier for building related analyses - Organize, Analyze, Report

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**Key features:**

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- See, Quantify and Estimate potential energy cost savings.
  - Possibility of assessing scope of damage/problem
  - Customized report templates for: Air infiltration, Moisture, Insulation deficiencies, and estimation of potential energy savings.
  - Panorama functionality: Create automatically one image from many to cover large objects or increase resolution
  - Link files.
  - Create graph of the conditions during the inspection.
  - Support for MeterLink™ data
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**Release notes**

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Version	FLIR BuildIR 2.1
New features	<ul style="list-style-type: none"><li>• Support for Windows® 7</li><li>• Support for MeterLink™ data</li><li>• Support for fusion</li></ul>

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**Scope of delivery**

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- FLIR BuildIR
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**System requirements**

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Operating system	Windows XP, 32-bit Windows Vista, 32-bit/64-bit Windows 7, 32-bit/64-bit
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